

Trade name: Hesse PU Acrylic Brilliant lacquer, high gloss DU 45229

Version: 17 / GB

Revision: 06.08.2020

Replaces Version: 16 / GB

Print date: 29.10.21

## 1. Identification of the substance/mixture and of the company/undertaking

### 1.1. Product identifier

Hesse PU Acrylic Brilliant lacquer, high gloss DU 45229

### 1.2. Relevant identified uses of the substance or mixture and uses advised against

#### Use of the substance/preparation

Surface treatment of wood and other materials

#### Identified Uses

	-----
	REACHSET 1000
SU3	Industrial uses: Uses of substances as such or in preparations at industrial sites
ERC4	Industrial use of processing aids in processes and products, not becoming part of articles
ERC5	Industrial use resulting in inclusion into or onto a matrix
PROC7	Industrial spraying
	-----
	REACHSET 2001
SU22	Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
ERC8a	Wide dispersive indoor use of processing aids in open systems
ERC8c	Wide dispersive indoor use resulting in inclusion into or onto a matrix
PROC11	Non industrial spraying

### 1.3. Details of the supplier of the safety data sheet

#### Manufacturer

Hesse GmbH & Co. KG  
Warendorfer Strasse 21  
59075 Hamm (Germany)  
Telephone no. +49 (0) 2381 963-00  
Fax no. +49 (0) 2381 963-849  
E-mail address ps@hesse-lignal.de

### 1.4. Emergency telephone number

Germany: +49 (0) 2381 788-612

## 2. Hazards identification

### 2.1. Classification of the substance or mixture

#### Classification (Regulation (EC) No. 1272/2008)

Classification (Regulation (EC) No. 1272/2008)

Flam. Liq. 3	H226
STOT SE 3	H336

The product is classified and labelled in accordance with Regulation (EC) No 1272/2008  
For explanation of abbreviations see section 16.

### 2.2. Label elements

#### Labelling according to regulation (EC) No 1272/2008

Trade name: Hesse PU Acrylic Brilliant lacquer, high gloss DU 45229

Version: 17 / GB

Revision: 06.08.2020

Replaces Version: 16 / GB

Print date: 29.10.21

**Hazard pictograms****Signal word**

Warning

**Hazard statements**

H226 Flammable liquid and vapour.  
 H336 May cause drowsiness or dizziness.

**Precautionary statements**

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
 P261 Avoid breathing dust/fume/gas/mist/vapours/spray.  
 P280 Wear protective gloves/protective clothing/eye protection/face protection.  
 P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
 P308+P313 IF exposed or concerned: Get medical advice/ attention.  
 P403+P233 Store in a well-ventilated place. Keep container tightly closed.

**Hazardous component(s) to be indicated on label (Regulation (EC) No. 1272/2008)**

contains n-butyl acetate; 2-methoxy-1-methylethyl acetate

**Supplemental information**

EUH066 Repeated exposure may cause skin dryness or cracking.

**2.3. Other hazards**

This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT). This mixture contains no substance considered to be very persistent nor very bioaccumulating (vPvB) (if not listed in Section 3).

**3. Composition/information on ingredients****Hazardous ingredients****n-butyl acetate**

CAS No.	123-86-4			
EINECS no.	204-658-1			
Registration no.	01-2119485493-29			
Concentration	>= 25	<	50	%
Classification (Regulation (EC) No. 1272/2008)	Flam. Liq. 3		H226	
	STOT SE 3		H336	Nervous system
			EUH066	

**2-methoxy-1-methylethyl acetate**

CAS No.	108-65-6			
EINECS no.	203-603-9			
Registration no.	01-2119475791-29			
Concentration	>= 1	<	10	%
Classification (Regulation (EC) No. 1272/2008)	Flam. Liq. 3		H226	
	STOT SE 3		H336	

Trade name: Hesse PU Acrylic Brilliant lacquer, high gloss DU 45229

Version: 17 / GB

Revision: 06.08.2020

Replaces Version: 16 / GB

Print date: 29.10.21

**di-isobutyl ketone**

CAS No. 108-83-8  
 EINECS no. 203-620-1  
 Registration no. 01-2119474441-41  
 Concentration  $\geq 1$  < 10 %  
 Classification (Regulation (EC) No. 1272/2008)  
 Flam. Liq. 3 H226  
 STOT SE 3 H335

Concentration limits (Regulation (EC) No. 1272/2008)  
 STOT SE 3 H335  $\geq 10$

**xylene**

CAS No. 1330-20-7  
 EINECS no. 215-535-7  
 Registration no. 01-2119488216-32  
 Concentration  $\geq 1$  < 10 %  
 Classification (Regulation (EC) No. 1272/2008)  
 Flam. Liq. 3 H226  
 Acute Tox. 4 H332  
 Acute Tox. 4 H312  
 Skin Irrit. 2 H315  
 Asp. Tox. 1 H304  
 STOT SE 3 H335  
 Eye Irrit. 2 H319

Route of exposure: Inhalation  
 exposure  
 Route of exposure: Dermal  
 exposure

Respiratory tract; Route of  
 exposure: inhalative

**Naphtha (petroleum), hydrotreated heavy**

CAS No. 64742-48-9  
 EINECS no. 265-150-3  
 Registration no. 01-2119486659-16  
 Concentration  $\geq 1$  < 10 %  
 Classification (Regulation (EC) No. 1272/2008)  
 Asp. Tox. 1 H304  
 EUH066

**ethylbenzene**

CAS No. 100-41-4  
 EINECS no. 202-849-4  
 Registration no. 01-2119489370-35  
 Concentration  $\geq 1$  < 8 %  
 Classification (Regulation (EC) No. 1272/2008)  
 Flam. Liq. 2 H225  
 Acute Tox. 4 H332  
 STOT RE 2 H373  
 Asp. Tox. 1 H304

Route of exposure: Inhalation  
 exposure  
 Ear

**2-ethylhexanoic acid, zinc salts**

CAS No. 85203-81-2

Trade name: Hesse PU Acrylic Brilliant lacquer, high gloss DU 45229

Version: 17 / GB

Revision: 06.08.2020

Replaces Version: 16 / GB

Print date: 29.10.21

EINECS no.	286-272-3
Registration no.	01-2119979093-30
Concentration	>= 0,1 < 1 %
Classification (Regulation (EC) No. 1272/2008)	
Repr. 2	H361d
Eye Irrit. 2	H319
Aquatic Chronic 3	H412

**Note**

For explanation of abbreviations see section 16.

This product does not contain substances of very high concern (Regulation (EC) No 1907/2006 (REACH), Article 57) (if not listed in Section 3).

**4. First aid measures****4.1. Description of first aid measures****General information**

If unconscious place in recovery position and seek medical advice. In all cases of doubt, or when symptoms persist, seek medical attention. First aider: Pay attention to self-protection! Remove affected person from danger area, lay him down.

**After inhalation**

In case of accident by inhalation: remove casualty to fresh air and keep at rest. Keep warm, calm and covered up. In all cases of doubt, or when symptoms persist, seek medical attention.

**After skin contact**

Wash off immediately with soap and water. Do NOT use solvents or thinners. Consult a doctor if skin irritation persists.

**After eye contact**

Remove contact lenses, irrigate copiously with clean, fresh water, holding the eyelids apart for at least 10 minutes and seek immediate medical advice. Take medical treatment.

**After ingestion**

Do not induce vomiting. Take medical treatment.

**4.2. Most important symptoms and effects, both acute and delayed**

Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness. High concentration of vapours may cause irritation to eyes and respiratory system and produce narcotic effects.

**4.3. Indication of any immediate medical attention and special treatment needed****Hints for the physician / treatment**

Treat symptomatically.

**5. Firefighting measures****5.1. Extinguishing media****Suitable extinguishing media**

Recommended: alcohol resistant foam, CO<sub>2</sub>, powders, water spray/mist

**Non suitable extinguishing media**

Do not use a solid water stream as it may scatter and spread fire.

Trade name: Hesse PU Acrylic Brilliant lacquer, high gloss DU 45229

Version: 17 / GB

Revision: 06.08.2020

Replaces Version: 16 / GB

Print date: 29.10.21

## 5.2. Special hazards arising from the substance or mixture

Fire will produce dense black smoke. In a fire, hazardous decomposition products may be produced. Exposure to decomposition products may cause a health hazard. Vapours can form an explosive mixture with air.

## 5.3. Advice for firefighters

### Special protective equipment for fire-fighting

In case of combustion evolution of dangerous gases possible. Use self-contained breathing apparatus.

### Other information

Cool closed containers exposed to fire with water. Do not allow run-off from fire fighting to enter drains or water courses. Standard procedure for chemical fires.

## 6. Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

Eliminate all ignition sources if safe to do so. Ensure adequate ventilation. Do not inhale vapours. Do not inhale gases. Do not inhale mist.

### 6.2. Environmental precautions

Do not allow to enter drains or waterways. Do not allow to enter soil, waterways or waste water canal. In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

### 6.3. Methods and material for containment and cleaning up

Contain and collect spillage with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth and place in container for disposal according to local regulations (see section 13). Clean contaminated floors and objects thoroughly with water and detergents, observing environmental regulations. Do NOT use solvents or thinners. Send in suitable containers for recovery or disposal.

### 6.4. Reference to other sections

Refer to protective measures listed in Sections 7 and 8.

## 7. Handling and storage

### 7.1. Precautions for safe handling

#### Advice on safe handling

Prevent the creation of flammable or explosive concentrations of vapour in air and avoid vapour concentration higher than the occupational exposure limits. Keep container tightly closed and dry in a cool, well-ventilated place. Use only with adequate ventilation/personal protection. Ensure adequate ventilation. Provide for sufficient ventilation. This can be achieved by local exhaust or general exhaust air collection. Wear a suitable respirator if the ventilation is not sufficient to keep the solvent vapour concentration below the occupational limit values. Avoid contact with skin and eyes. Avoid inhalation of vapour and spray mist. Do not eat, drink or smoke when using this product. Use personal protective clothing. For personal protection see Section 8.

#### Advice on protection against fire and explosion

Vapours can form an explosive mixture with air. Vapours are heavier than air and may spread along floors. In addition, the product should only be used in areas from which all naked lights and other sources of ignition have been excluded. Mixture may charge electrostatically: always use earthing leads when transferring from one container to another. Take measures to prevent the build up of electrostatic charge. Wear shoes with conductive soles. No sparking tools should be used. Fight fire with normal precautions from a reasonable distance.

### 7.2. Conditions for safe storage, including any incompatibilities

Trade name: Hesse PU Acrylic Brilliant lacquer, high gloss DU 45229

Version: 17 / GB

Revision: 06.08.2020

Replaces Version: 16 / GB

Print date: 29.10.21

### Requirements for storage rooms and vessels

Provide solvent-resistant and impermeable floor. Keep only in the original container in a cool, well ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

### Hints on storage assembly

Store away from oxidising agents, from strongly alkaline and strongly acid materials.

### Storage classes

Storage class according to TRGS 510      3                      Flammable liquid

### Further information on storage conditions

Protect from frost. Protect from heat and direct sunlight. Keep away from sources of ignition - No smoking. Store in accordance with the particular national regulations.

## 7.3. Specific end use(s)

See exposure scenario, if available.

## 8. Exposure controls/personal protection

### 8.1. Control parameters

#### Exposure limit values

##### 2-methoxy-1-methylethyl acetate

List	Directive 2017/164 EG			
Value	275	mg/m <sup>3</sup>	50	ppm(V)
Short term exposure limit	550	mg/m <sup>3</sup>	100	ppm(V)
Status:	12/2009			

##### 2-methoxy-1-methylethyl acetate

List	EH40			
Value	274	mg/m <sup>3</sup>	50	ppm(V)
Short term exposure limit	548	mg/m <sup>3</sup>	100	ppm(V)
Skin resorption / sensibilisation:	Sk; Status: 01/2020			

##### n-butyl acetate

List	EH40			
Value	724	mg/m <sup>3</sup>	150	ppm(V)
Short term exposure limit	966	mg/m <sup>3</sup>	200	ppm(V)
Status:	01/2020			

##### n-butyl acetate

List	Directive 2017/164 EG			
Value	241	mg/m <sup>3</sup>	50	ppm(V)
Short term exposure limit	723	mg/m <sup>3</sup>	150	ppm(V)
Status:	10/2019			

##### xylene

List	Directive 2017/164 EG			
Value	221	mg/m <sup>3</sup>	50	ppm(V)
Short term exposure limit	442	mg/m <sup>3</sup>	100	ppm(V)
Skin resorption / sensibilisation:	H; Status: 12/2009			

##### xylene

List	EH40			
Value	220	mg/m <sup>3</sup>	50	ppm(V)
Short term exposure limit	441	mg/m <sup>3</sup>	100	ppm(V)
Skin resorption / sensibilisation:	Sk; Status: 01/2020			

Trade name: Hesse PU Acrylic Brilliant lacquer, high gloss DU 45229

Version: 17 / GB

Revision: 06.08.2020

Replaces Version: 16 / GB

Print date: 29.10.21

**di-isobutyl ketone**

List	EH40			
Value	148	mg/m <sup>3</sup>	25	ppm(V)
Status:	01/2020			

**ethylbenzene**

List	Directive 2017/164 EG			
Value	442	mg/m <sup>3</sup>	100	ppm(V)
Short term exposure limit	884	mg/m <sup>3</sup>	200	ppm(V)
Status:	12/2009			

**ethylbenzene**

List	EH40			
Value	441	mg/m <sup>3</sup>	100	ppm(V)
Short term exposure limit	552	mg/m <sup>3</sup>	125	ppm(V)
Skin resorption / sensibilisation: Sk; Status: 01/2020				

**Naphtha (petroleum), hydrotreated heavy**

List	EH40			
Value	1200	mg/m <sup>3</sup>		
Status:	01/2020			

**Other information**

-

**Derived No/Minimal Effect Levels (DNEL/DMEL)**

**2-methoxy-1-methylethyl acetate**

Type of value	Derived No Effect Level (DNEL)			
Reference group	Workers (professional)			
Duration of exposure	Long-term			
Route of exposure	inhalative			
Mode of action	Systemic effects			
Concentration	275			mg/m <sup>3</sup>

Type of value	Derived No Effect Level (DNEL)			
Reference group	Workers (professional)			
Duration of exposure	Long-term			
Route of exposure	Dermal exposure			
Mode of action	Systemic effects			
Concentration	153,5			mg/kg/d

Type of value	Derived No Effect Level (DNEL)			
Reference group	Consumer			
Duration of exposure	Long-term			
Route of exposure	Oral exposure			
Mode of action	Systemic effects			
Concentration	1,67			mg/kg/d

Type of value	Derived No Effect Level (DNEL)			
Reference group	Consumer			
Duration of exposure	Long-term			
Route of exposure	inhalative			
Mode of action	Systemic effects			
Concentration	33			mg/m <sup>3</sup>

Type of value	Derived No Effect Level (DNEL)			
---------------	--------------------------------	--	--	--

Trade name: Hesse PU Acrylic Brilliant lacquer, high gloss DU 45229

Version: 17 / GB

Revision: 06.08.2020

Replaces Version: 16 / GB

Print date: 29.10.21

Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	Dermal exposure	
Mode of action	Systemic effects	
Concentration	54,8	mg/kg

**n-butyl acetate**

Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (professional)	
Duration of exposure	Long-term	
Route of exposure	Dermal exposure	
Mode of action	Systemic effects	
Concentration	11	mg/kg/d

Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (professional)	
Duration of exposure	Short-term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	600	mg/m <sup>3</sup>

Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (professional)	
Duration of exposure	Short-term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	600	mg/m <sup>3</sup>

Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (professional)	
Duration of exposure	Long-term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	300	mg/m <sup>3</sup>

Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (professional)	
Duration of exposure	Long-term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	300	mg/m <sup>3</sup>

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	Dermal exposure	
Mode of action	Systemic effects	
Concentration	6	mg/kg/d

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	Oral exposure	



Trade name: Hesse PU Acrylic Brilliant lacquer, high gloss DU 45229

Version: 17 / GB

Revision: 06.08.2020

Replaces Version: 16 / GB

Print date: 29.10.21

Mode of action	Systemic effects	
Concentration	2	mg/kg/d

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Short-term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	300	mg/m <sup>3</sup>

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Short-term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	300	mg/m <sup>3</sup>

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	35,7	mg/m <sup>3</sup>

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	35,7	mg/m <sup>3</sup>

**xylene**

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	Dermal exposure	
Mode of action	Systemic effects	
Concentration	108	mg/kg/d

Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (professional)	
Duration of exposure	Long-term	
Route of exposure	Dermal exposure	
Mode of action	Systemic effects	
Concentration	180	mg/kg/d

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	14,8	mg/m <sup>3</sup>

Trade name: Hesse PU Acrylic Brilliant lacquer, high gloss DU 45229

Version: 17 / GB

Revision: 06.08.2020

Replaces Version: 16 / GB

Print date: 29.10.21

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Short-term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	174	mg/m <sup>3</sup>
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Short-term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	174	mg/m <sup>3</sup>
Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (professional)	
Duration of exposure	Long-term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	77	mg/m <sup>3</sup>
Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (professional)	
Duration of exposure	Long-term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	77	mg/m <sup>3</sup>
Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (professional)	
Duration of exposure	Short-term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	289	mg/m <sup>3</sup>
Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (professional)	
Duration of exposure	Short-term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	289	mg/m <sup>3</sup>
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	Oral exposure	
Mode of action	Systemic effects	
Concentration	1,6	mg/kg/d
Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (professional)	
Duration of exposure	Short-term	
Route of exposure	Dermal exposure	

Trade name: Hesse PU Acrylic Brilliant lacquer, high gloss DU 45229

Version: 17 / GB

Revision: 06.08.2020

Replaces Version: 16 / GB

Print date: 29.10.21

Mode of action	Local effects	
Concentration	174	mg/kg/d

**ethylbenzene**

Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (professional)	
Duration of exposure	Short-term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	289	mg/m <sup>3</sup>

Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (professional)	
Duration of exposure	Long-term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	77	mg/m <sup>3</sup>

Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (professional)	
Duration of exposure	Short-term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	289	mg/m <sup>3</sup>

Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (professional)	
Duration of exposure	Long-term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	77	mg/m <sup>3</sup>

Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (professional)	
Duration of exposure	Long-term	
Route of exposure	Dermal exposure	
Mode of action	Systemic effects	
Concentration	18	mg/kg/d

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Short-term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	174	mg/m <sup>3</sup>

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Short-term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	174	mg/m <sup>3</sup>

Trade name: Hesse PU Acrylic Brilliant lacquer, high gloss DU 45229

Version: 17 / GB

Revision: 06.08.2020

Replaces Version: 16 / GB

Print date: 29.10.21

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	14,8	mg/m <sup>3</sup>
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	Dermal exposure	
Mode of action	Systemic effects	
Concentration	108	mg/kg/d
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	Oral exposure	
Mode of action	Systemic effects	
Concentration	1,6	mg/kg/d
<b>Naphtha (petroleum), hydrotreated heavy</b>		
Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (professional)	
Duration of exposure	Long-term	
Route of exposure	Dermal exposure	
Mode of action	Systemic effects	
Concentration	300	mg/kg/d
Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (professional)	
Duration of exposure	Long-term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	1500	mg/m <sup>3</sup>
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	Dermal exposure	
Mode of action	Systemic effects	
Concentration	300	mg/kg/d
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	900	mg/m <sup>3</sup>
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	

Trade name: Hesse PU Acrylic Brilliant lacquer, high gloss DU 45229

Version: 17 / GB

Revision: 06.08.2020

Replaces Version: 16 / GB

Print date: 29.10.21

Route of exposure	Oral exposure	
Mode of action	Systemic effects	
Concentration	300	mg/kg/d

**di-isobutyl ketone**

Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (professional)	
Duration of exposure	Short-term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	290	mg/m <sup>3</sup>

Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (professional)	
Duration of exposure	Short-term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	290	mg/m <sup>3</sup>

Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (professional)	
Duration of exposure	Long-term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	290	mg/m <sup>3</sup>

Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (professional)	
Duration of exposure	Long-term	
Route of exposure	Dermal exposure	
Mode of action	Systemic effects	
Concentration	80	mg/kg/d

Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (professional)	
Duration of exposure	Long-term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	479	mg/m <sup>3</sup>

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Short-term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	145	mg/m <sup>3</sup>

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Short-term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	145	mg/m <sup>3</sup>

Trade name: Hesse PU Acrylic Brilliant lacquer, high gloss DU 45229

Version: 17 / GB

Revision: 06.08.2020

Replaces Version: 16 / GB

Print date: 29.10.21

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	145	mg/m <sup>3</sup>
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	Dermal exposure	
Mode of action	Systemic effects	
Concentration	28,5	mg/kg/d
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	171	mg/m <sup>3</sup>
<b>2-ethylhexanoic acid, zinc salts</b>		
Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (industrial)	
Duration of exposure	Long-term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	20,83	mg/m <sup>3</sup>
Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (industrial)	
Duration of exposure	Long-term	
Route of exposure	Dermal exposure	
Mode of action	Systemic effects	
Concentration	6,41	mg/kg/d
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	Oral exposure	
Mode of action	Systemic effects	
Concentration	3,21	mg/kg/d
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	10,42	mg/m <sup>3</sup>
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	

Trade name: Hesse PU Acrylic Brilliant lacquer, high gloss DU 45229

Version: 17 / GB

Revision: 06.08.2020

Replaces Version: 16 / GB

Print date: 29.10.21

Duration of exposure	Long-term	
Route of exposure	Dermal exposure	
Mode of action	Systemic effects	
Concentration	3,21	mg/kg/d

**Predicted No Effect Concentration (PNEC)**

**2-methoxy-1-methylethyl acetate**

Type of value	PNEC	
Type	Freshwater	
Concentration	0,635	mg/l
Type of value	PNEC	
Type	Saltwater	
Concentration	0,0635	mg/l
Type of value	PNEC	
Conditions	sporadic release	
Concentration	6,35	mg/l
Type of value	PNEC	
Type	Fresh water sediment	
Concentration	3,29	mg/kg
Type of value	PNEC	
Type	saltwater sediment	
Concentration	0,329	mg/kg
Type of value	PNEC	
Type	Soil	
Concentration	0,29	mg/kg
Type of value	PNEC	
Type	Sewage treatment plant (STP)	
Concentration	100	mg/l

**n-butyl acetate**

Type of value	PNEC	
Type	Freshwater	
Concentration	0,18	mg/l
Type of value	PNEC	
Type	Saltwater	
Concentration	0,018	mg/l
Type of value	PNEC	
Type	Sewage treatment plant (STP)	
Concentration	35,6	mg/l
Type of value	PNEC	
Type	Water	
Conditions	sporadic release	
Concentration	0,36	mg/l

Trade name: Hesse PU Acrylic Brilliant lacquer, high gloss DU 45229

Version: 17 / GB

Revision: 06.08.2020

Replaces Version: 16 / GB

Print date: 29.10.21

Type of value	PNEC	
Type	Fresh water sediment	
Concentration	0,981	mg/kg

Type of value	PNEC	
Type	saltwater sediment	
Concentration	0,0981	mg/l

Type of value	PNEC	
Type	Soil	
Concentration	0,0903	mg/kg

**xylene**

Type of value	PNEC	
Type	Freshwater	
Concentration	0,327	mg/l

Type of value	PNEC	
Type	Saltwater	
Concentration	0,327	mg/l

Type of value	PNEC	
Type	Fresh water sediment	
Concentration	12,46	mg/kg

Type of value	PNEC	
Type	saltwater sediment	
Concentration	12,46	mg/kg

Type of value	PNEC	
Type	Soil	
Concentration	2,31	mg/kg

Type of value	PNEC	
Type	Sewage treatment plant (STP)	
Concentration	6,58	mg/l

**ethylbenzene**

Type of value	PNEC	
Type	Freshwater	
Concentration	0,327	mg/l

Type of value	PNEC	
Type	Fresh water sediment	
Concentration	12,46	mg/kg

Type of value	PNEC	
Type	Soil	
Concentration	2,31	mg/kg

Type of value	PNEC	
Type	Sewage treatment plant (STP)	



Trade name: Hesse PU Acrylic Brilliant lacquer, high gloss DU 45229

Version: 17 / GB

Revision: 06.08.2020

Replaces Version: 16 / GB

Print date: 29.10.21

Concentration	6,58	mg/l
<b>di-isobutyl ketone</b>		
Type of value	PNEC	
Type	Freshwater	
Concentration	0,03	mg/l
Type of value	PNEC	
Type	marine water	
Concentration	0,003	mg/l
Type of value	PNEC	
Conditions	sporadic release	
Concentration	0,3	mg/l
Type of value	PNEC	
Type	Fresh water sediment	
Concentration	0,46	mg/kg
Type of value	PNEC	
Type	saltwater sediment	
Concentration	0,046	mg/kg
Type of value	PNEC	
Type	Sewage treatment plant (STP)	
Concentration	2,55	mg/l
<b>2-ethylhexanoic acid, zinc salts</b>		
Type of value	PNEC	
Type	Freshwater	
Concentration	0,36	mg/l
Type of value	PNEC	
Type	marine water	
Concentration	0,036	mg/l
Type of value	PNEC	
Type	Fresh water sediment	
Concentration	6,37	mg/kg
Type of value	PNEC	
Type	Soil	
Concentration	1,06	mg/kg
Type of value	PNEC	
Type	Sewage treatment plant (STP)	
Concentration	71,7	mg/l

## 8.2. Exposure controls

### Exposure controls

Users are advised to consider national Occupational Exposure Limits or other equivalent values. Provide

Trade name: Hesse PU Acrylic Brilliant lacquer, high gloss DU 45229

Version: 17 / GB

Revision: 06.08.2020

Replaces Version: 16 / GB

Print date: 29.10.21

for sufficient ventilation. This can be achieved by local exhaust or general exhaust air collection. Wear a suitable respirator if the ventilation is not sufficient to keep the solvent vapour concentration below the occupational limit values.

### Respiratory protection

Avoid inhalation of vapour and spray mist. Use breathing apparatus if exposed to vapours/dust/aerosol. Recommended Filter type: Respiratory protection mask with combination filter A/P2

### Hand protection

Protective gloves complying with EN 374.

Glove material

Multilayer gloves made from

Appropriate Material Fluorinated rubber / butyl-rubber

Material thickness  $\geq$  0,7 mm

Breakthrough time  $\geq$  30 min

This recommendation is valid only for the product named in this safety data sheet supplied by us, and only for the indicated intended use purposes.

For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed.

The breakthrough time must be greater than the end use time of the product.

Gloves should be replaced regularly and if there is any sign of damage to the glove material.

The performance or effectiveness of the glove may be reduced by physical/ chemical damage and poor maintenance.

### Eye protection

Wear eye glasses with side protection according to EN 166.

### Body protection

Wear suitable protective clothing. Remove contaminated clothing and wash it before reuse. Wash hands before breaks and after work.

## 9. Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

<b>Form</b>	liquid
<b>Colour</b>	colourless
<b>Odour</b>	solvent-like
<b>Odour threshold</b>	
Remarks	not determined
<b>Melting point</b>	
Remarks	not determined
<b>Freezing point</b>	
Remarks	not determined
<b>Initial boiling point and boiling range</b>	
Value	124 to 217 °C
<b>Flash point</b>	
Value	24 °C
<b>Evaporation rate</b>	
Remarks	not determined

Trade name: Hesse PU Acrylic Brilliant lacquer, high gloss DU 45229

Version: 17 / GB

Revision: 06.08.2020

Replaces Version: 16 / GB

Print date: 29.10.21

**Flammability (solid, gas)**

not determined

**Upper/lower flammability or explosive limits**

Remarks not determined

**Vapour pressure**

Remarks not determined

**Vapour density**

Remarks not determined

**Density**

Value	appr. 0,978			kg/l
Temperature	20	°C		

**Solubility in water**

Remarks not determined

**Solubility(ies)**

Remarks not determined

**Partition coefficient: n-octanol/water**

Remarks not determined

**Ignition temperature**

Remarks not determined

**Decomposition temperature**

Remarks not determined

**Viscosity**

Remarks not determined

**Efflux time**

Value	27	to	33	s
Temperature	20	°C		
Method	DIN EN ISO 2431 - 4 mm			

**Explosive properties**

evaluation not determined

**Oxidising properties**

Remarks not determined

**9.2. Other information****Non-volatile content**

Value	38,7	%
Method	calculated value	

**Other information**

This information is not available.

**10. Stability and reactivity****10.1. Reactivity**

Stable under recommended storage and handling conditions (see section 7).

**10.2. Chemical stability**

Trade name: Hesse PU Acrylic Brilliant lacquer, high gloss DU 45229

Version: 17 / GB

Revision: 06.08.2020

Replaces Version: 16 / GB

Print date: 29.10.21

Stable under normal conditions.

**10.3. Possibility of hazardous reactions**

To avoid thermal decomposition, do not overheat.

**10.4. Conditions to avoid**

Isolate from sources of heat, sparks and open flame.

**10.5. Incompatible materials**

Keep away from oxidising agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions.

**10.6. Hazardous decomposition products**Carbon monoxide and carbon dioxide, nitrous oxides (NO<sub>x</sub>), dense black smoke, No decomposition if used as prescribed.**11. Toxicological information****11.1. Information on toxicological effects****Acute oral toxicity**

Method	Calculation method (Regulation (EC) No. 1272/2008)
Remarks	Based on available data, the classification criteria are not met.

**Acute dermal toxicity**

ATE	> 10.000	mg/kg
Method	calculated value (Regulation (EC) No. 1272/2008)	
Remarks	Based on available data, the classification criteria are not met.	

**Acute dermal toxicity (Components)****xylene**

ATE	2000	mg/kg
Source	alle Daten über 2000 mg/kg	

**Acute inhalational toxicity**

ATE	> 20	mg/l
Administration/Form	Dust/Mist	
Method	calculated value (Regulation (EC) No. 1272/2008)	
Remarks	Based on available data, the classification criteria are not met.	

**Acute inhalative toxicity (Components)****xylene**

ATE	5	mg/l
Duration of exposure	4	h
Administration/Form	Dust/Mist	
Source	alle Werte über 5 mg/l	

**ethylbenzene**

ATE	1,5	mg/l
Duration of exposure	4	h
Administration/Form	Dust/Mist	
Method	conversion value	
Remarks	Mist	

**Skin corrosion/irritation**

Method	Calculation method (Regulation (EC) No. 1272/2008)
Remarks	Based on available data, the classification criteria are not met.

Trade name: Hesse PU Acrylic Brilliant lacquer, high gloss DU 45229

Version: 17 / GB

Revision: 06.08.2020

Replaces Version: 16 / GB

Print date: 29.10.21

**Skin corrosion/irritation (Components)****xylene**

Species	rabbit
Observation Period	72 h
evaluation	Irritating to skin.
Source	2 (reliable with restrictions)

**Serious eye damage/irritation**

Method	Calculation method (Regulation (EC) No. 1272/2008)
Remarks	Based on available data, the classification criteria are not met.

**Serious eye damage/irritation (Components)****xylene**

Species	rabbit
evaluation	Irritating to eyes.
Source	2 (reliable with restrictions)

**2-ethylhexanoic acid, zinc salts**

evaluation	Irritating to eyes.
------------	---------------------

**Sensitization**

Method	Calculation method (Regulation (EC) No. 1272/2008)
Remarks	Based on available data, the classification criteria are not met.

**Mutagenicity**

Method	Calculation method (Regulation (EC) No. 1272/2008)
Remarks	Based on available data, the classification criteria are not met.

**Reproductive toxicity**

Method	Calculation method (Regulation (EC) No. 1272/2008)
Remarks	Based on available data, the classification criteria are not met.

**Reproduction toxicity (Components)****2-ethylhexanoic acid, zinc salts**

evaluation	Reproductive toxicity, Category 2
------------	-----------------------------------

**Carcinogenicity**

Method	Calculation method (Regulation (EC) No. 1272/2008)
Remarks	Based on available data, the classification criteria are not met.

**Specific Target Organ Toxicity (STOT)****Single exposure**

Method	Calculation method (Regulation (EC) No. 1272/2008)
Remarks	The classification criteria are met.
evaluation	May cause drowsiness or dizziness.

**Repeated exposure**

Remarks	Based on available data, the classification criteria are not met.
---------	---

**Specific Target Organ Toxicity (STOT) (Components)****n-butyl acetate****Specific target organ toxicity - repeated exposure**

Remarks	Organs: Nervous system Possible narcotic effects (drowsiness, dizziness).
---------	--

**xylene**

Trade name: Hesse PU Acrylic Brilliant lacquer, high gloss DU 45229

Version: 17 / GB

Revision: 06.08.2020

Replaces Version: 16 / GB

Print date: 29.10.21

**Specific target organ toxicity - single exposure**

Route of exposure inhalative  
 Organs: Respiratory tract  
 Remarks May cause respiratory irritation.

**di-isobutyl ketone****Specific target organ toxicity - single exposure**

Organs: Respiratory tract  
 Remarks May cause respiratory irritation.

**2-methoxy-1-methylethyl acetate****Specific target organ toxicity - repeated exposure**

evaluation May cause drowsiness or dizziness.  
 Organs: Nervous system

**Aspiration hazard**

Based on available data, the classification criteria are not met.

**Other information**

No toxicological data are available.

**12. Ecological information****12.1. Toxicity****General information**

For this subsection there is no ecotoxicological data available on the product as such.

**Fish toxicity (Components)****di-isobutyl ketone**

Species	Oncorhynchus mykiss (rainbow trout)		
LC50	140		mg/l
Duration of exposure	96	h	

**Naphtha (petroleum), hydrotreated heavy**

Species	Pimephales promelas (fathead minnow)		
LC50	2200		mg/l
Duration of exposure	96	h	

**2-ethylhexanoic acid, zinc salts**

Species	Fish		
LC50	1,1		mg/l
Duration of exposure	96	h	

**Daphnia toxicity (Components)****di-isobutyl ketone**

Species	Daphnia magna (Water flea)		
EC50	250		mg/l
Duration of exposure	48	h	

**Naphtha (petroleum), hydrotreated heavy**

Species	Chaetogammarus marinus		
EC50	2,6		mg/l
Duration of exposure	96	h	

**2-ethylhexanoic acid, zinc salts**

Species	Daphnia magna (Water flea)		
NOEC	0,101		mg/l

Trade name: Hesse PU Acrylic Brilliant lacquer, high gloss DU 45229

Version: 17 / GB

Revision: 06.08.2020

Replaces Version: 16 / GB

Print date: 29.10.21

Duration of exposure 7 d

**Algae toxicity (Components)****di-isobutyl ketone**

Species	Pseudokirchneriella subcapitata (green algae)		
EC50	100		mg/l
Duration of exposure	96	h	

**12.2. Persistence and degradability****General information**

For this subsection there is no ecotoxicological data available on the product as such.

**Biodegradability (Components)****di-isobutyl ketone**

Value	88		%
Duration of test evaluation	20	d	
Readily biodegradable.			

**12.3. Bioaccumulative potential****General information**

For this subsection there is no ecotoxicological data available on the product as such.

**Partition coefficient: n-octanol/water**

Remarks not determined

**12.4. Mobility in soil****General information**

For this subsection there is no ecotoxicological data available on the product as such.

**Mobility in soil**

no data available

**12.5. Results of PBT and vPvB assessment****General information**

For this subsection there is no ecotoxicological data available on the product as such.

**12.6. Other adverse effects****General information**

For this subsection there is no ecotoxicological data available on the product as such.

**General information / ecology**

For this subsection there is no ecotoxicological data available on the product as such.

**13. Disposal considerations****13.1. Waste treatment methods****Disposal recommendations for the product**

EWC waste code	080111 - waste paint and varnish containing organic solvents or other dangerous substances
EWC waste code	200127 - paint, inks, adhesives and resins containing dangerous substances

Where possible recycling is preferred to disposal or incineration.

Do not allow to enter drains or waterways.

Trade name: Hesse PU Acrylic Brilliant lacquer, high gloss DU 45229

Version: 17 / GB

Revision: 06.08.2020

Replaces Version: 16 / GB

Print date: 29.10.21

**modified product**

EWC waste code 080113 - sludges from paint or varnish containing organic solvents or other dangerous substances  
 EWC waste code 080115 - aqueous sludges containing paint or varnish containing organic solvents or other dangerous substances




**Dried residues**

EWC waste code 080112 - waste lacquers and waste paint except those falling under 080111

**Disposal recommendations for packaging**

EWC waste code 150110 - packaging containing residues of or contaminated by dangerous substances  
 Completely emptied packagings can be given for recycling.

**14. Transport information**

	Land transport ADR/RID	Marine transport IMDG/GGVSee	Air transport ICAO/IATA
Tunnel restriction code	D/E		
14.1. UN number	1263	1263	1263
14.2. UN proper shipping name	PAINT	PAINT	PAINT
14.3. Transport hazard class(es)	3	3	3
Label			
14.4. Packing group	III	III	III
Limited Quantity	5 l		
Transport category	3		

**15. Regulatory information**

**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

**VOC**

VOC (EU) 61,3 % 599 g/l

**Other information**

All components are contained in the TSCA inventory or exempted.  
 All components are contained in the PICCS inventory.  
 All components are contained in the IECSC inventory.



Trade name: Hesse PU Acrylic Brilliant lacquer, high gloss DU 45229

Version: 17 / GB

Revision: 06.08.2020

Replaces Version: 16 / GB

Print date: 29.10.21

## 15.2. Chemical safety assessment

For this substance / mixture a chemical safety assessment was not carried out.

## 16. Other information

### Hazard statements listed in Chapter 3

EUH066	Repeated exposure may cause skin dryness or cracking.
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H361d	Suspected of damaging the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.
H412	Harmful to aquatic life with long lasting effects.

### CLP categories listed in Chapter 3

Acute Tox. 4	Acute toxicity, Category 4
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic, Category 3
Asp. Tox. 1	Aspiration hazard, Category 1
Eye Irrit. 2	Eye irritation, Category 2
Flam. Liq. 2	Flammable liquid, Category 2
Flam. Liq. 3	Flammable liquid, Category 3
Repr. 2	Reproductive toxicity, Category 2
Skin Irrit. 2	Skin irritation, Category 2
STOT RE 2	Specific target organ toxicity - repeated exposure, Category 2
STOT SE 3	Specific target organ toxicity - single exposure, Category 3

### Abbreviations

Flam. Liq - Flammable liquids  
 RID - Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)  
 IMDG - International Maritime Code for Dangerous Goods  
 IATA - International Air Transport Association  
 IATA-DGR - Dangerous Goods Regulations by the "International Air Transport Association" (IATA)  
 ICAO-TI - Technical Instructions by the "International Civil Aviation Organization" (ICAO)  
 GHS - Globally Harmonized System of Classification and Labelling of Chemicals  
 EINECS - European Inventory of Existing Commercial Chemical Substances  
 CAS - Chemical Abstracts Service (division of the American Chemical Society)  
 GefStoffV - Gefahrstoffverordnung (Ordinance on Hazardous Substances, Germany)  
 LOAEL - Lowest Observed Adverse Effect Level  
 LOEL - Lowest Observed Effect Level  
 NOAEL - No Observed Adverse Effect Level  
 NOEC - No Observed Effect Concentration  
 NOEL - No Observed Effect Level  
 OECD - Organisation for Economic Cooperation and Development  
 VOC - Volatile Organic Compounds  
 Changes since the last version are highlighted in the margin (\*\*\*). This version replaces all previous versions.  
 This safety datasheet only contains information relating to safety and does not replace any product

Trade name: Hesse PU Acrylic Brilliant lacquer, high gloss DU 45229

Version: 17 / GB

Revision: 06.08.2020

Replaces Version: 16 / GB

Print date: 29.10.21

information or product specification.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification.

The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

The information contained herein is based on the present state of our knowledge and does therefore not guarantee certain properties.

## **Annex to the extended Safety Data Sheet (eSDS)**

### **Short title of the exposure scenario**

ES001 - Industrial applications: industrial spraying (inside)

### **Use of the substance/preparation**

Surface treatment of wood and other materials

### **Use**

SU3	Industrial uses: Uses of substances as such or in preparations at industrial sites
ERC4	Industrial use of processing aids in processes and products, not becoming part of articles
ERC5	Industrial use resulting in inclusion into or onto a matrix
PROC7	Industrial spraying

## **Contributing exposure scenario controlling environmental exposure**

### **Use**

ERC4	Industrial use of processing aids in processes and products, not becoming part of articles
ERC5	Industrial use resulting in inclusion into or onto a matrix

### **Physical form**

liquid

### **Maximum amount used per time or activity**

Emission days per site: <= 300

### **Other relevant operational conditions**

Use: Room temperature

Drying and through-curing takes place at ambient temperature or at higher temperatures.

Where possible recycling is preferred to disposal or incineration.

Do not allow to enter soil, waterways or waste water canal.

Dispose of rinse water in accordance with local and national regulations.

### **Waste water**

Do not discharge into the drains/surface waters/groundwater. Spray cabin waters are to be conducted after mechanical pretreatment into a wastewater treatment facility.

### **Exhaust air**

Keep container closed. Avoid release to the environment.

### **Soil**

Floors should be impervious, resistant to liquids and easy to clean.

### **Disposal recommendations for the product**

EWC waste code	080111 - waste paint and varnish containing organic solvents or other dangerous substances
	200127 - paint, inks, adhesives and resins containing

Trade name: Hesse PU Acrylic Brilliant lacquer, high gloss DU 45229

Version: 17 / GB

Revision: 06.08.2020

Replaces Version: 16 / GB

Print date: 29.10.21

dangerous substances

Where possible recycling is preferred to disposal or incineration.

Do not allow to enter drains or waterways.

**modified product**

EWC waste code

080113 - sludges from paint or varnish containing organic solvents or other dangerous substances  
 080115 - aqueous sludges containing paint or varnish containing organic solvents or other dangerous substances

**Dried residues**

EWC waste code

080112 - waste lacquers and waste paint except those falling under 080111

**Disposal recommendations for packaging**

EWC waste code

150110 - packaging containing residues of or contaminated by dangerous substances

Completely emptied packagings can be given for recycling.

**Contributing exposure scenario controlling worker exposure****Use**

SU3

Industrial uses: Uses of substances as such or in preparations at industrial sites

PROC7

Industrial spraying

**Physical form**

liquid

**Maximum amount used per time or activity**

Duration of exposure &lt;= 8 h/d

Frequency of exposure &lt;= 220 d/a

**Other relevant operational conditions**

Use: Room temperature

Drying and through-curing takes place at ambient temperature or at higher temperatures.

Read attached instructions before use.

**Product substance and product safety related measures**

Mainly used in closed systems. Apply technical measures to comply with the occupational exposure limits. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. Provide for sufficient ventilation. This can be achieved by local exhaust or general exhaust air collection. Wear a suitable respirator if the ventilation is not sufficient to keep the solvent vapour concentration below the occupational limit values.

**Respiratory protection**

Avoid inhalation of vapour and spray mist. Use breathing apparatus if exposed to vapours/dust/aerosol.

Recommended Filter type: Respiratory protection mask with combination filter A/P2

**Hand protection**

Protective gloves complying with EN 374.

Glove material

Multilayer gloves made from

Appropriate Material Fluorinated rubber / butyl-rubber

Material thickness &gt;= 0,7

Breakthrough time &gt;= 30

This recommendation is valid only for the product named in this safety data sheet supplied by us, and only for the indicated intended use purposes.

For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Trade name: Hesse PU Acrylic Brilliant lacquer, high gloss DU 45229

Version: 17 / GB

Revision: 06.08.2020

Replaces Version: 16 / GB

Print date: 29.10.21

The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed.

The breakthrough time must be greater than the end use time of the product.

Gloves should be replaced regularly and if there is any sign of damage to the glove material.

The performance or effectiveness of the glove may be reduced by physical/ chemical damage and poor maintenance.

### Eye protection

Wear eye glasses with side protection according to EN 166.

### Body protection

Wear suitable protective clothing. Remove contaminated clothing and wash it before reuse. Wash hands before breaks and after work.

## Exposure estimation and reference to its source

### Workers (industrial)

SU	SU3
PROC	PROC7
Assessment method	inhalation, long-term - local and systemic
Exposure assessment	27,54 mg/m <sup>3</sup>
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,1
Lead substance	2-methoxy-1-methylethyl acetate

### Workers (industrial)

SU	SU3
PROC	PROC7
Assessment method	dermal, long-term - local and systemic
Exposure assessment	2,14 mg/kg/d
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,01
Lead substance	2-methoxy-1-methylethyl acetate

### Workers (industrial)

SU	SU3
PROC	PROC10
Assessment method	inhalation, long-term - local and systemic
Exposure assessment	55,08 mg/m <sup>3</sup>
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,2
Lead substance	2-methoxy-1-methylethyl acetate

### Workers (industrial)

SU	SU3
PROC	PROC10
Assessment method	dermal, long-term - local and systemic
Exposure assessment	27,43 mg/kg/d
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,18
Lead substance	2-methoxy-1-methylethyl acetate

### Workers (industrial)

SU	SU3
PROC	PROC13
Assessment method	inhalation, long-term - local and systemic
Exposure assessment	55,08 mg/m <sup>3</sup>

Trade name: Hesse PU Acrylic Brilliant lacquer, high gloss DU 45229

Version: 17 / GB

Revision: 06.08.2020

Replaces Version: 16 / GB

Print date: 29.10.21

Exposure assessment (method)  
Risk characterisation ratio (RCR)  
Lead substance

ECETOC TRA  
0,2  
2-methoxy-1-methylethyl acetate

**Workers (industrial)**

SU  
PROC  
Assessment method  
Exposure assessment  
Exposure assessment (method)  
Risk characterisation ratio (RCR)  
Lead substance

SU3  
PROC13  
dermal, long-term - local and systemic  
13,71 mg/kg/d  
ECETOC TRA  
0,09  
2-methoxy-1-methylethyl acetate

**Workers (industrial)**

PROC  
Assessment method  
  
Exposure assessment  
Exposure assessment (method)  
Risk characterisation ratio (RCR)  
Lead substance

PROC7  
inhalation, long-term - local and systemic  
Indoor use  
60,5 mg/m<sup>3</sup>  
ECETOC TRA  
0,126  
n-butyl acetate

**Workers (industrial)**

PROC  
Assessment method  
  
Exposure assessment  
Exposure assessment (method)  
Risk characterisation ratio (RCR)  
Lead substance

PROC10  
inhalation, long-term - systemic  
Indoor use  
242 mg/m<sup>3</sup>  
ECETOC TRA  
0,504  
n-butyl acetate

**Workers (industrial)**

PROC  
Assessment method  
  
Exposure assessment  
Exposure assessment (method)  
Risk characterisation ratio (RCR)  
Lead substance

PROC10  
inhalation, long-term - systemic  
Outdoor use  
242 mg/m<sup>3</sup>  
ECETOC TRA  
0,504  
n-butyl acetate

**Workers (industrial)**

PROC  
Assessment method  
  
Exposure assessment  
Exposure assessment (method)  
Risk characterisation ratio (RCR)  
Lead substance

PROC13  
inhalation, long-term - systemic  
Indoor use  
242 mg/m<sup>3</sup>  
ECETOC TRA  
0,504  
n-butyl acetate

**Workers (industrial)**

PROC  
Assessment method  
  
Exposure assessment  
Exposure assessment (method)  
Risk characterisation ratio (RCR)  
Lead substance

PROC13  
inhalation, long-term - systemic  
Outdoor use  
242 mg/m<sup>3</sup>  
ECETOC TRA  
0,504  
n-butyl acetate

Trade name: Hesse PU Acrylic Brilliant lacquer, high gloss DU 45229

Version: 17 / GB

Revision: 06.08.2020

Replaces Version: 16 / GB

Print date: 29.10.21

**Workers (industrial)**

SU	SU3
PROC	PROC7
Assessment method	inhalative
	Indoor use
Exposure assessment	0,1 mg/m <sup>3</sup>
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,34
Lead substance	xylene

**Workers (industrial)**

SU	SU3
PROC	PROC10
Assessment method	inhalative
	Indoor use
Exposure assessment	0,05 mg/m <sup>3</sup>
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,172
Lead substance	xylene

**Workers (industrial)**

SU	SU3
PROC	PROC13
Assessment method	inhalative
	Indoor use
Exposure assessment	0,1 mg/m <sup>3</sup>
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,34
Lead substance	xylene

**Information on estimated exposure and downstream-user guidance****Guidance for Downstream Users**

The downstream user can evaluate whether he operates within the conditions set in the exposure scenario on the basis of the information supplied. This evaluation can be conducted by an expert or using the risk assessment tools recommended by ECHA.

**Annex to the extended Safety Data Sheet (eSDS)****Short title of the exposure scenario**

ES003 - Professional uses: Non industrial spraying (inside)

**Use of the substance/preparation**

Surface treatment of wood and other materials

**Use**

SU22	Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
ERC8a	Wide dispersive indoor use of processing aids in open systems
ERC8c	Wide dispersive indoor use resulting in inclusion into or onto a matrix
PROC11	Non industrial spraying

**Contributing exposure scenario controlling environmental exposure****Use**

Trade name: Hesse PU Acrylic Brilliant lacquer, high gloss DU 45229

Version: 17 / GB

Revision: 06.08.2020

Replaces Version: 16 / GB

Print date: 29.10.21

ERC8a Wide dispersive indoor use of processing aids in open systems  
 ERC8c Wide dispersive indoor use resulting in inclusion into or onto a matrix  
**Physical form** liquid

**Maximum amount used per time or activity**

Emission days per site: &lt;= 250

**Other relevant operational conditions**

Use: Room temperature  
 Drying and through-curing takes place at ambient temperature or at higher temperatures.  
 Volatile organic substances will volatilise into the atmospheric air inside.  
 Where possible recycling is preferred to disposal or incineration.  
 Do not allow to enter soil, waterways or waste water canal.  
 Dispose of rinse water in accordance with local and national regulations.

**Waste water**

Do not discharge into the drains/surface waters/groundwater. Spray cabin waters are to be conducted after mechanical pretreatment into a wastewater treatment facility.

**Exhaust air**

Keep container closed. Avoid release to the environment.

**Soil**

Floors should be impervious, resistant to liquids and easy to clean.

**Disposal recommendations for the product**

EWC waste code 080111 - waste paint and varnish containing organic solvents or other dangerous substances  
 200127 - paint, inks, adhesives and resins containing dangerous substances

Where possible recycling is preferred to disposal or incineration.  
 Do not allow to enter drains or waterways.

**modified product**

EWC waste code 080113 - sludges from paint or varnish containing organic solvents or other dangerous substances  
 080115 - aqueous sludges containing paint or varnish containing organic solvents or other dangerous substances

**Dried residues**

EWC waste code 080112 - waste lacquers and waste paint except those falling under 080111

**Disposal recommendations for packaging**

EWC waste code 150110 - packaging containing residues of or contaminated by dangerous substances

Completely emptied packagings can be given for recycling.

**Contributing exposure scenario controlling worker exposure (professional)****Short title of the exposure scenario**

Substance number:CES006

**Use**

SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)  
 PROC11 Non industrial spraying

Trade name: Hesse PU Acrylic Brilliant lacquer, high gloss DU 45229

Version: 17 / GB

Revision: 06.08.2020

Replaces Version: 16 / GB

Print date: 29.10.21

**Physical form** liquid**Maximum amount used per time or activity**

Duration of exposure	<=	8	h/d
Frequency of exposure	<=	220	d/a

**Other relevant operational conditions**

Use: Room temperature

Drying and through-curing takes place at ambient temperature or at higher temperatures.

Volatile organic substances will volatilise into the atmospheric air inside.

Read attached instructions before use.

**Product substance and product safety related measures**

Apply technical measures to comply with the occupational exposure limits. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. Provide for sufficient ventilation. This can be achieved by local exhaust or general exhaust air collection. Wear a suitable respirator if the ventilation is not sufficient to keep the solvent vapour concentration below the occupational limit values.

**Respiratory protection**

Avoid inhalation of vapour and spray mist. Use breathing apparatus if exposed to vapours/dust/aerosol.

Recommended Filter type: Respiratory protection mask with combination filter A/P2

**Hand protection**

Protective gloves complying with EN 374.

Glove material

Multilayer gloves made from

Appropriate Material Fluorinated rubber / butyl-rubber

Material thickness &gt;= 0,7

Breakthrough time &gt;= 30

This recommendation is valid only for the product named in this safety data sheet supplied by us, and only for the indicated intended use purposes.

For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed.

The breakthrough time must be greater than the end use time of the product.

Gloves should be replaced regularly and if there is any sign of damage to the glove material.

The performance or effectiveness of the glove may be reduced by physical/ chemical damage and poor maintenance.

**Eye protection**

Wear eye glasses with side protection according to EN 166.

**Body protection**

Wear suitable protective clothing. Remove contaminated clothing and wash it before reuse. Wash hands before breaks and after work.

**Exposure estimation and reference to its source****Workers (professional)**

SU	SU22
PROC	PROC13
Assessment method	inhalation, long-term - local and systemic
Exposure assessment	55,08 mg/m <sup>3</sup>
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,2



Trade name: Hesse PU Acrylic Brilliant lacquer, high gloss DU 45229

Version: 17 / GB

Revision: 06.08.2020

Replaces Version: 16 / GB

Print date: 29.10.21

Lead substance 2-methoxy-1-methylethyl acetate

**Workers (professional)**

SU SU22  
 PROC PROC13  
 Assessment method dermal, long-term - local and systemic  
 Exposure assessment 13,71 mg/kg/d  
 Exposure assessment (method) ECETOC TRA  
 Risk characterisation ratio (RCR) 0,09

Lead substance 2-methoxy-1-methylethyl acetate

**Workers (professional)**

SU SU22  
 PROC PROC10  
 Assessment method inhalation, long-term - local and systemic  
 Exposure assessment 137,71 mg/m<sup>3</sup>  
 Exposure assessment (method) ECETOC TRA  
 Risk characterisation ratio (RCR) 0,5

Lead substance 2-methoxy-1-methylethyl acetate

**Workers (professional)**

SU SU22  
 PROC PROC10  
 Assessment method dermal, long-term - local and systemic  
 Exposure assessment 27,43 mg/kg/d  
 Exposure assessment (method) ECETOC TRA  
 Risk characterisation ratio (RCR) 0,18

Lead substance 2-methoxy-1-methylethyl acetate

**Workers (professional)**

SU SU22  
 PROC PROC11  
 Assessment method inhalation, long-term - local and systemic  
 Indoor use  
 Exposure assessment 27,54 mg/m<sup>3</sup>  
 Exposure assessment (method) ECETOC TRA  
 Risk characterisation ratio (RCR) 0,1

Lead substance 2-methoxy-1-methylethyl acetate

**Workers (professional)**

SU SU22  
 PROC PROC11  
 Assessment method dermal, long-term - local and systemic  
 Indoor use  
 Exposure assessment 2,14 mg/kg/d  
 Exposure assessment (method) ECETOC TRA  
 Risk characterisation ratio (RCR) 0,01

Lead substance 2-methoxy-1-methylethyl acetate

**Workers (professional)**

SU SU22  
 PROC PROC11  
 Assessment method inhalation, long-term - local and systemic  
 Outdoor use  
 Exposure assessment 55,08 mg/m<sup>3</sup>  
 Exposure assessment (method) ECETOC TRA  
 Risk characterisation ratio (RCR) 0,2

Trade name: Hesse PU Acrylic Brilliant lacquer, high gloss DU 45229

Version: 17 / GB

Revision: 06.08.2020

Replaces Version: 16 / GB

Print date: 29.10.21

Lead substance	2-methoxy-1-methylethyl acetate
<b>Workers (professional)</b>	
SU	SU22
PROC	PROC11
Assessment method	dermal, long-term - local and systemic Outdoor use
Exposure assessment	107,14 mg/kg/d
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,7
Lead substance	2-methoxy-1-methylethyl acetate
SU	SU21
Assessment method	dermal, long-term - systemic Indoor use
Exposure assessment	6 mg/kg/d
Exposure assessment (method)	ConsExpo v4.1
Risk characterisation ratio (RCR)	0,11
Lead substance	2-methoxy-1-methylethyl acetate
SU	SU21
Assessment method	inhalation, long-term - systemic Indoor use
Exposure assessment	6,83 mg/m <sup>3</sup>
Exposure assessment (method)	ConsExpo v4.1
Risk characterisation ratio (RCR)	0,6
Lead substance	2-methoxy-1-methylethyl acetate
<b>Workers (professional)</b>	
SU	SU22
PROC	PROC11
Assessment method	Long-term inhalative
Exposure assessment	242 mg/m <sup>3</sup>
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,504
Lead substance	n-butyl acetate
<b>Workers (professional)</b>	
SU	SU22
PROC	PROC10
Assessment method	inhalative Indoor use
Exposure assessment	0,05 mg/m <sup>3</sup>
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,172
Lead substance	xylene
<b>Workers (professional)</b>	
SU	SU22
PROC	PROC11
Assessment method	inhalative Indoor use
Exposure assessment	0,1 mg/m <sup>3</sup>
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,34
Lead substance	xylene

Trade name: Hesse PU Acrylic Brilliant lacquer, high gloss DU 45229

Version: 17 / GB

Revision: 06.08.2020

Replaces Version: 16 / GB

Print date: 29.10.21

**Workers (professional)**

SU	SU22
PROC	PROC13
Assessment method	inhalative
	Indoor use
Exposure assessment	0,05 mg/m <sup>3</sup>
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,172
Lead substance	xylene

**Information on estimated exposure and downstream-user guidance****Guidance for Downstream Users**

The downstream user can evaluate whether he operates within the conditions set in the exposure scenario on the basis of the information supplied. This evaluation can be conducted by an expert or using the risk assessment tools recommended by ECHA.